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ABSTRACT

Cooperative education programs aid students in making the transition from school to work. Other benefits include enhanced employability and earning power. Employers benefit through the ability of cooperative education programs to adapt to labor market needs, through reduced recruitment and training problems, and through the satisfaction gained from helping to educate students. The essential elements of cooperative education programs include (1) alternate or parallel periods of instruction in school and supervised employment, (2) written training agreements, (3) vocational instruction related to the job and the student's academic study or career goals, (4) carefully planned alternation of study and work, and (5) students' employment and compensation. These activities are guided by a cooperative education coordinator--an individual who functions in each of the five areas into which the program is organized: administration, coordination, guidance, public relations, and professional development. Issues and recommendations for future cooperative education programs include increased funding, required preservice and inservice training for coordinators, and an expanded role for advisory committees. (Appendixes include descriptions of experiential educational programs, a list of cooperative education coordinator functions, a sample training agreement and school year training plan, a directory of state officials with supervisory responsibility for cooperative education programs, and a glossary.) (YLB)

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Information Series No. 253

COOPERATIVE EDUCATION

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FOREWORD

Cooperative Education reviews the literature describing the benefits of the program for students and employers, the essential program elements, and the functions of cooperative education coordinators. Recommendations are offered for future programs.

This paper is one of ten interpretive papers produced during the fifth year of the National Center's knowledge transformation program. The review and synthesis in each topic area is intended to communicate knowledge and suggest applications. Papers in the series should be of interest to all vocational educators including teachers, administrators, federal agency personnel, and researchers.

The profession is indebted to Dr. Jack T. Humbert and Dr. Carl A. Woloszyk for their scholarship in preparing this paper. Dr. Humbert is Professor in the College of Engineering and Applied Science at Western Michigan University, Kalamazoo, Michigan. Dr. Woloszyk is State Supervisor for Cooperative Education, Vocational Technical Education Services, Michigan Department of Education, Lansing, Michigan.

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EXECUTIVE SUMMARY

Cooperative education is an organizational plan or instructional delivery system that combines work-related learning experiences available in the community with occupationally oriented instructions provided in an educational institution. Cooperative education programs closely paralleled early federal vocational education legislation and increased in the United States following the passage of the Vocational Education Act (1963) and the Higher Education Act (1965).

A large number of individuals, educational agencies, and employers are involved in cooperative education programming. Cooperative education programs aid students in making the transition from school to work—that is, the programs lead to more positive self-concepts, attitudes toward school and employment, and interpersonal skills. Other benefits include enhanced employability and earning power. Employers benefit from cooperative education programs through the ability of these programs to adapt to labor market needs, through reduced recruitment and training problems, and through the satisfaction gained from helping to educate students. The essential elements of cooperative education programs include (1) alternate or parallel periods of instruction in school and supervised public or private employment; (2) a written training agreement among the school, an employer, and a student; (3) vocational instruction (including required academic instruction) related to the job and the student's academic study or career goals; (4) carefully planned alternation of study and work supervised to further the student's education and employability; and (5) students' employment and compensation in compliance with federal, state, and local laws.

These activities are guided by a cooperative education coordinator—an individual who functions in the areas of administration, coordination, guidance, professional development, and public relations. These areas provide a framework for a discussion of program organization. Program implementation involves assessing needs, completing a cost-benefit analysis, organizing an advisory committee, planning, and reporting.

Coordination activities involve integrating all the administrative and instructional activities of a cooperative education program to the benefit of students—those activities related to the essential elements and those related to such supportive services as guidance. Guidance activities contribute to career development—that is, the planning, exploration, and establishment of life roles. The coordinators' responsibilities in the area of public relations include activities designed to increase awareness and create a positive image for the program. Professional development activities are important for keeping abreast of innovations.

Issues and recommendations for future cooperative education programs include increased funding, required preservice and inservice training for coordinators, and an expanded role for advisory committees.

INTRODUCTION

Cooperative education is an organizational plan or instructional delivery system that combines work-related learning experiences available in the community with occupationally oriented instruction provided in an educational institution. Both types of learning experiences are planned and supervised so as to contribute to students' education and employability. Cooperative education programs are provided by both secondary and postsecondary institutions. Descriptions of cooperative education programs as defined by vocational education and higher education legislation are included in Appendix A.

A large number of individuals, educational agencies, and employers are involved in cooperative education programming in the United States. According to the National Center for Education Statistics, over 595,000 secondary and postsecondary vocational-technical students were enrolled in cooperative education programs during the 1979-1980 school year. It is estimated that about 200,000 of these students are currently enrolled in 1,000 postsecondary institutions. Thousands of employers in business, industry, and government cooperate in providing cooperative education programs annually.

The value of practical on-the-job training has long been recognized in America. In colonial America, the apprenticeship system provided training for individuals so that they might become master craftworkers. With the advent of the industrial revolution, the formal apprenticeship system—in which the apprentice was dependent upon the master craftworker for food and shelter, gradually disappeared. Apprenticeship arrangements became more formalized, wages were paid, and the modern workweek was established. The apprenticeship program was structured around supervised training, task assignments organized from simple to complex, a written training agreement, and related formal instruction. This formed the framework for modern cooperative education programs.

The first formally organized cooperative education program in the United States was established at the University of Cincinnati in 1906. All engineering students were required to complete a professional work experience prior to receiving a degree. The first secondary cooperative education program was established in 1909 at Fitchburg, Massachusetts, in cooperation with the General Electric Company.

Cooperative education programs increased following the passage of the Vocational Education Act (1963) and the Higher Education Act (1965). During the 1970s both the Commission on Non-Traditional Study (1973) and the National Commission on the Reform of Secondary Education (1973) asserted that an important aspect of the educational process had been ignored through failure to provide programs offering occupational experiences to secondary school students. Similarly, recognition of the need for increased cooperative education programming at the postsecondary level has become more widespread in recent years.

The acceptance of cooperative education programs by employers, educational agencies, parents, and students is evident in several recent studies. For example, examination of a survey of attitudes toward public schools reveals that 64 percent of the American public is in favor of

schools hiring additional personnel to help students and graduates obtain employment (*12th Annual* 1980). According to the poll, every group surveyed favored stronger school-to-work linkages. A feasibility study by Stauber (1976) revealed that the majority of business and industry representatives, faculty, and students favored the implementation of a cooperative education program in a particular location (Stauber 1976).

A study by Frankel (1973) shows that occupational programs (especially cooperative vocational education programs) generate great enthusiasm among students, employers, and school officials. Students in the study indicated that they believed cooperative education provided them with valuable skills. Employers believed that they benefited from the program and that they contributed to the education and employability of students. School officials expressed satisfaction with both the instructional and job placement aspects of the programs. Specifically, Frankel found that cooperative education programs are more likely than any other type of program to include the following features:

- Job-related instruction
- A follow-up program for graduates
- An advisory committee
- A job placement service
- A high rate of job-related placement
- Jobs that offer formal on-the-job training
- Assistance for students in making occupational decisions
- Career-related job placements
- Placements in jobs with a high level of responsibility
- Placements in highly satisfying jobs

Postsecondary programs are perceived to be even more effective than secondary programs, especially with regard to (1) job-related instruction, (2) job-related placements, (3) assistance to students in making occupational decisions, (4) career-related job placements, (5) placements in jobs with a high level of responsibility, and (6) placements in highly satisfying jobs.

The importance of cooperative education is demonstrated by a review of the program benefits. Research has focused primarily on benefits to students and employers, a discussion of which follows.

Student Benefits

The National Association of Secondary School Principals (1973) reports that cooperative education offers benefits for students such as job satisfaction, enhanced self-concepts, and immediate reinforcement for productivity. A publication developed by the state of Florida (*Cooperative Vocational Education* 1982) suggests that cooperative education programs do the following things for students:

- Provide a realistic learning experience in which students may discover their interests and abilities
- Help students to develop the work-related habits and attitudes necessary for maturity and confidence
- Give meaning and purpose to theoretical knowledge gained in school
- Stimulate interest in school by making students aware of the relationship between classroom and job-related learning and success on the job
- Provide financial rewards along with employment skills
- Provide training in a chosen occupation
- Assist students through counseling during the transition from school to work

Research supports these ideas about the benefits of cooperative education. Lewis and associates (1976) note that school-supervised employment (especially cooperative education) results in increased satisfaction with school and reduced dropout rates. Welch (1980) reports that cooperative education students express more positive attitudes toward school than do other students. These students also express more positive attitudes toward employment. Helliwell (1981) indicates that secondary cooperative education students value work more intensely and have more positive attitudes toward work than students enrolled in other programs.

Cooperative education is also reported to contribute to the personal development of students. Middleton (1975) reports that work experience programs result in students' acquiring job skills that help them become self-directed, confident, and mature adults. Wilson (1974) reports the following positive affects of cooperative education programs on personal growth:

- Cooperative education students believe that greater personal career development has resulted from their educational program than do other students.
- Cooperative education students place higher value on the achievement of career goals whereas other students value personal well-being more.
- Cooperative education students display more prudence and conservatism in making judgements than do other students.

Cooperative education programs also promote the understanding of the human relations aspects of employment. Welch (1980) reports that secondary cooperative education graduates believe that the program helped them adjust to co-workers, customers, and others.

The provision of supervised experiences that smooth the transition from school to work probably is responsible for this increase in interpersonal skills. Osun (1980) notes that cooperative education programs help to orient students to the world of work because they link employment skills and classroom instruction and provide an opportunity for vocational exploration. Agrawal (1978) notes that students most frequently list "opportunities to explore work experiences related to their course of study" as the greatest strength of cooperative education programs.

A significant factor in the successful transition from school to the labor market is work experience during the high school years (Herrnstadt 1979). Not only does this work experience aid cooperative education students in entering the labor market, it provides them with economic benefits both in school and after graduation. Welch (1980) reports that secondary cooperative vocational education students earn an average of thirty cents per hour more than students enrolled in other vocational education programs and sixty-five cents an hour more than those enrolled in a general program. A Michigan study (Vocational-Technical Education Service 1980) reveals that a larger percentage of cooperative vocational education completers are employed at higher hourly wage rates than are other graduates. Whereas several other studies do not substantiate the higher wage rate, they do document improved employability:

- Cooperative education students obtain employment more quickly after high school graduation than do other students (Lewis et al. 1976).
- Over 63 percent of postsecondary cooperative education graduates in one study obtained employment in less than one month after graduation. Only 37 percent of other students obtained jobs in that time period (Hamlin 1978).
- Entry-level employees have better chances of obtaining a job if they have been enrolled in a cooperative vocational education program in high school (Larson 1981).
- Cooperative education enrollment is an effective predictor of student employability (Little 1974).

Similarly, less unemployment is experienced by cooperative education graduates (Lewis et al. 1976). In one state, a 22 percent unemployment rate was found to exist for general education students and graduates (sixteen to nineteen years of age), a 19 percent rate for vocational education students, and a 14 percent rate for cooperative vocational education students (Vocational-Technical Education Service 1980).

Employer Benefits

Employers are supportive of the cooperative education concept. Winer and Snell (1979) note that employers of secondary cooperative vocational education students value the competencies and attitudes toward work that the students gain from the program. Eaddy (1975) found employers to be enthusiastic supporters of cooperative education internships as a means for developing professional and technical proficiency. Endicott (1978) notes that employers' most frequently suggested improvements for postsecondary programs are related to an increase in practical and work-related courses and a better understanding of the job market by students.

Employers benefit from cooperative education programs through reduced recruitment and training problems. Winer and Snell (1979) found that employers regard cooperative education programs as an excellent way to recruit employees. Snell (1981) notes that cooperative education programs serve to assist employers in recruitment because employers realize a higher acceptance rate than through other recruiting programs. In addition, middle managers are more frequently involved in rating cooperative education students than in rating other candidates for employment. Therefore, they tend to be more satisfied with cooperative education students as employees.

Cooperative education students are also more satisfactory employees because not as much training is required for them to be "job-ready" as is required for other newly hired employees

(Welch 1980). Breen and Freeman (1978) report that employers believe cooperative education students learn more quickly than do other newly hired employees.

Employers also benefit from the ability of cooperative education programs to adapt to labor market and employer needs (Little 1974). Evans (1971) points to the adaptability of cooperative education programs as one of the outstanding advantages of the concept, noting that because employment is available only in occupations where a continuing need for workers exists, cooperative education programs are kept current.

In addition to cooperative education programs' tangible benefits, Hutt (1975) found that employers report that they derive an intangible benefit from participating in cooperative education programs—that is, the self-satisfaction of helping youth. A study by Frankel (1973) agrees that employers believe that they are contributing to young people's education by participating in cooperative education programs.

A publication developed by the state of Florida (*Cooperative Vocational Education* 1982) offers an excellent summary of the benefits of cooperative education programs for employers.

Cooperative education programs—

- provide employers with an opportunity to become a partner with the school in educating young workers,
- reduce recruitment and training problems for employers,
- reduce turnover,
- provide a pool of part-time employees from which employers can select full-time employees.

ESSENTIAL ELEMENTS

Cooperative education programs are comprised of basic elements required by the Vocational Education Act of 1963, as amended, and the Higher Education Act of 1965, as amended. Descriptions of these essential elements follow.

Alternate or parallel periods of instruction in school and supervised public or private employment are required. Periods of work and classroom activities may be made up of alternate half days, full days, weeks, or other time segments. Whereas work hours vary for each secondary student, many state vocational education agencies have established a minimum number of hours necessary for students to receive credit and an average necessary for a school to receive financial reimbursement. The average minimum number of hours is usually between fifteen and twenty hours per week. (This facilitates compliance with federal and state laws affecting the employment of minors.) Greater flexibility in working hours is permitted in postsecondary institutions. Postsecondary cooperative education students often work full-time for a quarter or semester term and then return to classes for a term.

A written agreement among the schools (secondary or postsecondary), the employers, the students, and where appropriate, the parents or guardians is required. This written agreement is commonly known as the training agreement. The training agreement is school initiated, and it outlines the responsibilities of the educational agencies, employers, and students to the program. In some states, the training agreement takes the place of a work permit for minors and identifies the legal conditions of employment for minors. A sample training agreement appears in Appendix C.

Instruction (including required academic instruction) must be related to the job and to the students' academic study or career goals. Vocational cooperative education programs normally have time requirements for related vocational instruction by occupational area, as dictated by the state vocational agencies. This required related instruction can range from a minimum of one hour up to three hours per day. At the secondary level, in-school courses are specifically designed to develop and improve students' attitudes, knowledge, and employability skills, and are generally designed to be taken concurrently with employment. Higher education cooperative education work experiences are generally a component of the institutions' degree requirements. A designated amount of credit is awarded for the experience. Required instruction and courses are dictated by the requirements of each individual degree program.

The alternation of study and work must be planned and supervised to further the students' education and employality. Cooperative education coordinators are responsible for planning and conducting related academic and vocational instruction designed to meet the students' on-the-job needs. The training sponsors (defined in Appendix F) have the responsibility of providing a variety of well-planned tasks to assist students in becoming competent employees. Competent supervision by both parties ensures that experience in a systematic progression of job-related skills is correlated with classroom instruction.

Students must be employed and compensated in compliance with federal, state, and local laws. Such compliance ensures that students are not exploited for private gain. The

compensation feature guarantees that students are paid for work performed and that they are recognized employees of the employing organization.

Research related to each of the five essential elements is reported in the following sections.

Alternation of Study with Employment

Lloyd (1981) reports that secondary students usually work each school day, work an average of twenty-one hours per week, and attend classes fifteen hours per week. The U.S. Office of Education (1975) reports that three patterns of study and work are commonly used:

- The alternate-semester pattern—Two students hold one full-time job during the year, each spending alternate semesters on campus and on the job.
- The parallel pattern—Students engage in concurrent part-time work experience and classes.
- The career development plan—Students hold full-time jobs and attend classes in the evening.

Agrawal (1978) reports that 75 percent of the postsecondary schools studied in New Jersey offer cooperative education programs on a semester basis. Students enroll primarily in parallel or extended-day plans. In the interest of gaining the apparent benefits of the flexible programming at the postsecondary level, a national institute recommended that scheduling patterns should be more varied and that supervised summer employment programs should be implemented (Billings 1970). Tapp (1969) supports this notion, noting the benefits of a program of summer employment.

Written Agreements

The most commonly used agreement is known as a training agreement, a statement of understandings and responsibilities related to student employment.* A training plan, a second type of agreement, is an educational outline used in conjunction with a training agreement.** The training plan details specific job tasks to be learned, focusing on the students' career goals and identifying time periods for learning assigned job tasks. It also specifies tasks to be learned in the classroom and at the training station.

Palmeiri and associates (1980) suggest that training agreements should have three distinct selections:

- General student-learner, school, and job site information
- Responsibilities of the training station, students, parents, and school
- A statement of nondiscrimination policy

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*A definition appears in Appendix F; a sample training agreement appears in Appendix C.

**A definition appears in Appendix F; a sample training plan appears in Appendix D.

Peart (1977) found that training agreements used in postsecondary institutions are usually concise forms representing informal understandings rather than formal legal contracts. Oral agreements are the basis of many postsecondary cooperative education programs. Peart suggests that written agreements should be used, and that the following items should be included:

- Information about the program
- Objectives of the program and for the student
- Signatures of all involved parties
- Information about the student
- Information about the employer
- Student responsibilities
- Parent responsibilities
- Employer responsibilities
- Job requirements
- Employer requirements

According to a study by Litchford (1977) a majority of training agreements identify the responsibilities of the teacher, parent, student, and training sponsor.*

With regard to training plans, Palmieri and associates (1980) report that only 51 percent of the vocational cooperative education programs studied use such outlines. In a related finding, Litchford (1977) reports that the majority of training sponsors studied were not involved in the development of training plans.

The use of such a training plan is advantageous. Thompson's (1975) findings indicate that a structured approach to the work experience component of cooperative education is effective in teaching occupational competencies.

Related Instruction

Cooperative education programs provide occupational instruction, including instruction related to the students' jobs and educational and career goals. As each student is placed in employment, the coordinator, student, and training sponsor should cooperatively develop a training plan to structure the educational experience.

This task may be somewhat difficult because agreement between coordinators and training sponsors is not widespread. Research indicates that coordinators believe that related instruction should be occupationally specific (Hutt 1975). Employers believe, however, that the instructional program should have a broader focus and should include such topics as computational skills,

*A definition appears in Appendix F.

personality development, and communications skills (Hutt 1975; Litchford 1977). This is supported by a study completed by Usoro (1980) that indicates that employers of vocational-technical workers expect their prospective employees to have the following characteristics:

- Adaptability
- Ambition
- Cooperativeness
- Dependability
- Neatness
- The ability to follow directions

Luft (1977) recommends that educators and employers work closely with each other to develop curriculum materials that teach desirable employment qualities.

The cooperative development of training plans should also provide for student concerns. Several studies have examined student perceptions of what should be provided in related instruction. Harris and White (1975) found that graduates of cooperative distribution education programs value their coordinators' ability to relate interpersonally and to assist them with occupational skills. Misley (1980) suggests that community college vocational curricula are deficient in requirements related to work attitudes and interpersonal skills. Phillips (1980) supports the perceived need for employability skills training and suggests that graduates acquire jobs more quickly when they receive employability skills instruction.

Regarding the structure of a training plan, Stewart (1979) notes that community college students prefer an open-entry/open-exit, self-paced instructional style followed by on-the-job training. Several studies have also been conducted on coordinators' perceptions as to what related instruction should be offered. Welch and Dixie (1972) found that coordinators place a high priority on the teaching of work attitudes, employer-employee relations, human relations, and job-seeking techniques. Lloyd (1981) reports that coordinators rank topics in order of importance for related instruction as follows:

1. Attitudes
2. Employer-employee relations
3. Communication skills
4. Payroll procedures
5. Mode of dress
6. Employer-customer relationships
7. Information on current technology and economic information

Chiti (1980) notes that coordinators consider the teaching of occupational survival skills to be relevant for occupational acquisition, maintenance, and mobility.

Campbell and Peels (1975) suggest that a task and job analysis of the student's training station activities should be the basis of a training plan. Secondary school distributive education training plans in use in the state of Washington may be a model for such efforts (Syhlman 1978). The training plan format follows:

- Name and occupational code
- Occupational description
- Sample job tasks
- Responsibilities
- Competency checklists

Planned and Supervised School and Work Activities

The alternation of study and work in cooperative education programs must be planned and supervised to ensure that systematic progression and acquisition of skills by students occur. School experiences must be correlated with on-the-job aspects of cooperative education to contribute effectively to students' education and employability. Structured training plans provide for this coordination, but close supervision is necessary for successful implementation.

Palmieri and associates (1980) found that 89 percent of the cooperative vocational education programs studied provide this close supervision. However, Litchford (1977) reports that the majority of training sponsors of secondary vocational cooperative education students in distributive education programs desire more frequent site visits by coordinators.

Agreement on this point is yet to be achieved. A study of the perceptions of employers, college administrators, and coordinators reveals that about 35 percent of administrators recommend five or more visits by the coordinator to the training station each semester. However, 85 percent of the coordinators and 78 percent of the employers see this amount as excessive.

A New Jersey study reveals that employers neither receive sufficient information regarding cooperative education nor are contacted by the coordinator on a regular basis (Agrawal 1978). This may be due to the problems identified by Collins (1977). Extensive teaching assignments and insufficient time for coordinating and travel are major concerns.

Lloyd (1981) suggests that additional research is needed regarding the optimum coordinator-student ratio. The average coordinator-student ratio per hour of designated coordination time is one to eleven. However, as many as forty-five students (per hour of released time) are assigned to some coordinators.

Although there is considerable disagreement regarding supervision of cooperative education students, consensus clearly exists regarding the importance of coordinator visits to training stations. Because coordinators are responsible for the health, safety, welfare, and educational progress of students, many state education agencies have established coordination schedules for training station visits.

Compensation of Students

Students involved in cooperative education must be employed and compensated in conformity with federal, state, and local laws. Little research has been conducted regarding compliance with the legal requirements. However, two studies have focused on the employment conditions of cooperative education students. A New Mexico study (*Over $6.0 Million* 1980) found that secondary occupational students, during the 1979–80 school year, worked an average of 658 hours, or approximately 18 hours per week. Lloyd's (1981) study found that students worked an average of 21 hours per week. Secondary vocational cooperative education students are limited in their work schedules by federal and state legislation affecting minors, whereas postsecondary students generally have the flexibility to work up to full-time at a training situation.

The requirement that cooperative education programs comply with federal, state, and local laws attempts to ensure that cooperative education students receive a valid training experience, adequate compensation for their efforts, and are not exploited for private gain.

PROGRAM ORGANIZATION

Research on the functions of cooperative education coordinators in Michigan identified nearly sixty required tasks classified into five functional areas (Vocational-Technical Education Service 1981).* These areas are as follows:

- Administration
- Coordination
- Guidance
- Professional development
- Public relations

These classifications for the functions of cooperative education coordinators provide a framework for the discussion of the available research related to program organization. Program administration is the first area of concern in the organization of cooperative education programs.

Administration

Various aspects of planning, implementing, and operating cooperative education programs have been well researched. The findings of these studies are discussed in the following section.

Needs Assessments

A needs assessment should be conducted prior to the implementation of a cooperative education program. Stauber (1976) assessed the need for a cooperative education program in a technical institute. In that survey, which obtained results much like those of similar efforts, 96 percent of the employers, 97 percent of the educators, and 95 percent of the students surveyed favored the implementation of a cooperative education program.

Cost Analyses

It is also recommended that a cost analysis be completed prior to the establishment of a cooperative education program. In such analyses, Molnar (1973) and Moore (1976) found that the costs of operating cooperative education programs are comparable to those of operating other educational programs. Molnar reports that there is little difference in the costs of providing a vocational cooperative education program and a regular vocational education program. Moore

*The complete list of functions appears in Appendix B.

(1976) found that capital planning and staffing for "work-study programs" need not cost more that a regular classroom program. Several studies, however, report higher costs for cooperative education than for regular programs (Lewis et al. 1976; Stromsdorfer and Fackler 1973; Vocational-Technical Education Service 1982).

Ideally a cost analysis of a cooperative education program would compare the actual program costs with the discounted value of the benefits derived by students from program participation over the period of their employment. Obviously, the benefits that accrue to a student over a lifetime of employment must be estimated, making cost-benefit analyses less than accurate. Research regarding the accrued benefits to students over a lifetime has not been conducted for cooperative education.

Short-term cost-benefit analyses have been completed by Bryan (1970) and Evans (1971). Bryan concludes by noting that the federal government received over two dollars for every dollar invested in cooperative education programs. Evans concurs with the assertion that the return from cooperative education programs is substantial. Studies of the economics of vocational education show a higher rate of return on investment in cooperative education than other types of vocational education. Capital costs for the school are lower.

Advisory Committees

Administrative guidelines for cooperative education programs developed by Moore and associates (1975) emphasize the following as important steps in developing a program:

- Establishing a steering committee made up of representatives of all groups with an interest in the program (i.e., employers, students, parents, and educators)
- Holding joint meetings with cooperating agencies
- Documenting the events that occur during the planning effort

The Vocational Education Amendments of 1976 require vocational education programs to include an advisory committee in their operational plans. The establishment of a steering committee for the purpose of implementing a cooperative education program offers school administrators an opportunity to begin the development of an advisory committee for the program. An advisory committee assists a coordinator in the operation of the program, according to one administrative handbook (Vocational-Technical Education Service 1981), by doing the following:

- Identifying program goals and objectives
- Reviewing the instructional program
- Determining expected program outcomes
- Assisting with student placements
- Furnishing equipment and supplies

An Oklahoma study (Amos 1974) reports that the following are perceived as important contributions of advisory committees:

- Gaining support and assistance for public relations efforts
- Promoting the program
- Identifying community problems and training needs
- Acquiring community surveys and manuals and the services of resource persons
- Updating the teacher-coordinator
- Training employers
- Providing feedback from the community

Planning

In developing an organizational plan for the implementation of a cooperative education program, the steering committee must consider the following questions:

- When can employers best use the services of students?
- How flexible is the school calendar and daily schedule?
- When are qualified staff available?
- When is transportation available to take students to training stations?
- How willing are school administrators to adjust student schedules?

Secondary cooperative education programs are usually organized on a "released time" basis. Students attend classes either in the morning or in the afternoon, and are released from school so that they can work during the alternate half day. This arrangement lends itself to "job sharing" arrangements in which two students share a single full-time job. Such an arrangement is convenient for both schools and employers. Summer employment is a feature of some programs. This organizational plan takes advantage of seasonal employment opportunities, as well as providing related instruction prior to and supervision during the on-the-job experience.

Postsecondary institutions frequently use an organizational plan for cooperative education in which students attend classes every other term and work during the remaining terms. Some industry-sponsored cooperative education programs are organized similarly, providing periods of instruction alternately with work periods.

Reporting

In addition to the requirement that advisory committees be established, the Vocational Education Amendments of 1976 require that follow-up surveys be conducted annually of completers of vocational education programs. Accurate records and reports are needed for compliance with this requirement, as well as for those of state and local agencies. An annual report highlighting the accomplishments of the cooperative education program can easily be prepared from the information collected for required reports. Such a report is invaluable for

promoting the program. It is suggested that the report answer the following questions about cooperative education program graduates:

- How many jobs are represented by the group?
- What types of jobs are represented by the group?
- To what extent is employment among the group that is related to the cooperative education programs represented?
- To what extent does the cooperative education experience of the group appear to have been adequate?
- To what extent does the group demonstrate occupational mobility?
- To what extent has the group sought postsecondary education?
- What occupational problems have been encountered by members of the group?

Coordination

Coordination is the process of integrating all the administrative, organizational, and instructional activities of a cooperative education program to the benefit of students. Activities involved in coordination are of two types: (1) those related to the essential elements of a cooperative education program and (2) those provided as supportive services.

Cooperative education programs are operated by coordinators—individuals who must possess the versatility to carry out a wide variety of activities. The *Handbook of Cooperative Education* (Scaverns and Wooldridge 1971) asserts that a cooperative education coordinator functions in the following roles:

- Administrator
- Educational recruiter
- Mediator
- Placement specialist
- Referral agent
- Salesperson
- Teacher
- Troubleshooter
- Vocational counselor

Guidance

Cooperative education programs are designed to contribute to students' career goals by providing career preparation activities. These programs can also contribute to the broader area of career concerns—individual career development. Career development involves planning, exploring, and establishing life roles. Cooperative education programs are increasingly recommended as a career development intervention that eases the transition from school to work and promotes career exploration (Silberman and Ginsburg 1976; Super and Hall 1978; Wirtz 1975).

Research reveals that cooperative education on-the-job experience provides a superior vehicle for vocational exploration (Ducat 1980). This finding is supported by Klubnik (1977), who asserts that the quality of on-the-job experiences in cooperative education is an excellent predictor of the quality of the individual's survival skills. It may be inferred that the possession of superior survival skills is an indicator that the individual is effectively managing the transition from school to work.

Lamb and McKay (1979) suggest a plan for effectively assisting students in their efforts to reach career goals. This career development strategy is the consolidation of placement and cooperative education programs. Lamb (1981) notes that students often come to the placement office to inquire about part-time work, and may not be aware of the benefits of cooperative education.

Further, the use of cooperative education concepts and those of placement services as elements of a career development plan is suggested by Lamb and McKay (1979). Herschimann (1976) suggests that because students seek occupational roles on the basis of skills acquired through career development, cooperative education coordinators must provide the means to integrate cooperative education and career development activities. The implication of these notions is that cooperative education coordinators must function effectively in a guidance role.

Another study (Husted 1977) reveals that cooperative education coordinators believe the following* to be important guidance functions of coordinators:

- Placement
- Recruitment and selection
- Educational guidance
- Career counseling and occupational information
- Personal and social counseling
- Follow-up
- Permanent record inventory

Not surprisingly, cooperative education coordinators who have had training in guidance activities are more likely to perform these functions than those who have not. Another survey (Vocational-Technical Education Service 1981) reveals that cooperative education coordinators

*Listed in order of importance from most to least important.

perceive the following guidance functions to be a substantial part of cooperative education coordinators' responsibilities:

- Orienting students to cooperative education policies and procedures
- Consulting with counselors, administrators, and teachers about enrolling students in cooperative education programs
- Assisting students in preparing for job interviews
- Conducting interviews with potential cooperative education programs
- Assisting students with employment applications
- Assisting students with personal adjustment problems
- Conferring with students about their educational progress
- Analyzing students' permanent records in relation to placement
- Writing letters of recommendation for students and graduates
- Orienting school personnel to cooperative education policies and procedures
- Conducting parent conferences

The procedures that cooperative education coordinators rank as most effective in carrying out guidance tasks—especially in assisting students with problems—have been identified by Rudisill (1976). These are as follows:

- Strategies directed toward students' high-interest concerns
- Individual counseling and individualized instruction
- Placement on a job appropriate to students' interests and abilities

These activities emphasize the importance of individualization in working with students. The needs of all students must be considered, but those of certain populations may require special consideration. Whereas cooperative education programs are enrolling larger numbers of females and members of racial minority groups, continued emphasis on this effort is needed. In addition, efforts to enroll disadvantaged and handicapped students are in order. Lloyd (1981) reports that 87 percent of a sample of cooperative education coordinators have no contact with handicapped students. Jernigan (1978) asserts that a need exists to coordinate services for handicapped students with employers. If cooperative education coordinators are to make a real contribution to the career development of special populations, the recommendations made by Gulledge (1978) must be put into practice. These recommendations are as follows:

- Ensure that the program operates responsive outreach and recruitment programs
- Ensure that guidance practices provide all students with the assistance necessary for making intelligent, informed occupational choices

- Develop effective communications with significant influences in the families of female (and other special) students
- Provide inservice education experiences designed to increase educators' awareness of their role in making vocational education available to all students
- Devise means for improving females' (and other special students') perception of their potential
- Provide assistance to females (and other special students) in occupational decision making

Public Relations

Cooperative education program objectives are misunderstood by many students, parents, and educators. The image of cooperative education is not as positive as it could be among these groups (Waddell 1976). Key individuals may not be as knowledgeable about the program as is desirable. A study by Davis (1977) reveals, for example, that secondary principals demonstrate a need for increased knowledge of the program.

One of the often overlooked responsibilities of cooperative education coordinators is program promotion—activities designed to increase awareness of the program. Lamb (1980) notes that a community college developed a special public relations project to increase awareness of cooperative education programs among student, faculty, and employers. Counselors, instructors, and students visited local businesses and industries to facilitate the exchange of information. Enrollments in cooperative education increased as a result of these visits. Public relations is ranked as important among coordinator tasks (Brownlee 1977). A survey (Vocational-Technical Education Service 1981) of cooperative education coordinators indicates that they believe the following public relations tasks to be a significant part of their job:

- Sponsor seminars about cooperative education for educators, employers, and parents
- Sponsor visits to businesses and industries for students and educators
- Implement a "day-on-the-job" program for students
- Develop a vocational group for students

Such activities can ensure the vitality of cooperative education programs by effectively communicating program purposes and procedures to the individuals whose support is needed for success. Strategies that are suggested to improve public relations for cooperative education programs include the following:

- Inform student groups about cooperative education
- Plan and conduct an annual employer-employee recognition activity
- Inform the school and community about cooperative education
- Include cooperative education students in recruitment activities

- Develop a cooperative education course catalog
- Prepare brochures about cooperative education programs to distribute to students
- Display information about cooperative education programs on bulletin boards
- Prepare information pieces about cooperative education programs to be used as public service announcements on radio and television
- Place advertisements for cooperative education in school and community newspapers

Professional Development

Cooperative education coordinators are typically required to hold a baccalaureate degree, to have two years of experience in their occupational field, and to complete one or two professional courses in cooperative education at a postsecondary institution. An assessment (Brown and Wilson 1979) of cooperative education teacher training programs led to the following conclusions:

- Cooperative education coordinator training should focus on participant objectives and outcomes.
- Workshop faculty must be highly skilled (i.e., competent).
- Workshops designed for experienced cooperative education coodinators should be offered.

Continuing education for cooperative education coordinators is becoming increasingly important because both instructional methodologies and the technologies used in business and industry are constantly changing. Coordinators were found by Brownlee (1977) to believe that inservice education is important, and that training on the following topics is needed most:

- Developing training agreements
- Selecting training stations
- Public relations
- Student relations

Roth (1978) reports that cooperative education coordinators perceive the following as important topics for inservice education programs:

- Correlating classroom instruction with on-the-job instruction
- Placement
- Student occupational problems
- Improvement of students' working environments

In order to maintain a high degree of professionalism, coordinators must continually keep abreast of innovations. Attending workshops and seminars and participating in college courses provide cooperative education coordinators with opportunities to discuss innovations with other professionals. Professional organizations, such as the American Vocational Association, sponsor state and national conferences where state-of-the-art information may be obtained. Journals dealing with topics related to cooperative education are also made available by these organizations and others, and these should be reviewed regularly.

Cooperative education coordinators can contribute to their knowledge of current technology in business and industry by attending meetings of business and civic organizations. Business and civic groups in many communities offer opportunities for coordinators to attend lectures and workshops on topics related to cooperative education or to an occupation. Membership in business and civic organizations also provides coordinators with opportunities to promote interest in cooperative education programs.

ISSUES AND RECOMMENDATIONS

Several policy issues related to cooperative education programming are apparent in the literature. These unresolved questions deserve thoughtful consideration by educational policymakers at federal, state, and local levels. In the interest of encouraging an examination of the issues and careful consideration of alternatives, the following questions and recommendations are offered.

Issue: Are the additional costs of operating cooperative education programs justified? Whereas some studies have indicated that cooperative education programs need not cost more than classroom programs, others have documented increased costs for cooperative education programs. Any decision regarding cooperative education programming has to consider the benefits of the program to the educational institution, employer, and individual participant. Clearly, the literature documents significant benefits for educational agencies, employers, and students.

Recommendation: The additional funding required to support cooperative education should be provided. Since cooperative education programs provide benefits unobtainable through other programs, it is recommended that local, state, and federal educational expenditures be directed to the expansion of cooperative education programming.

Issue: Should an organized program of professional development be required for certification of cooperative education coordinators? Numerous studies have detailed the variety of highly developed skills required of cooperative education coordinators. Organized programs of pre-service and inservice instruction (including field-based experiences) for preparing coordinators and maintaining their skills are not widely available. Adequate training for coordinators is of concern.

Recommendation: Organized professional development programs should be made available for cooperative education coordinators, and coordinators should be required to participate in such programs. It is recommended that cooperative education coordinators be required to participate in a program of professional development, including pre-service field-based training. The success of cooperative education programs is largely dependent on the competence of coordinators. Inservice training should be designed and implemented so that coordinators are continually updated on the legal aspects of employment, on technological advances, and on innovative instructional strategies.

Issue: What advisory role should employers have in cooperative education programming? While several publications have identified the functions of advisory committees in cooperative education, little agreement exists among employers as to their legitimate advisory functions. Some studies have indicated an increased need for business and industry participation, whereas other studies have shown that employers view curriculum and programmatic decisions to be the sole function of the educational agency.

Recommendation: The role of advisory committees should be expanded to include all phases of planning and implementing cooperative education programs. A program advisory committee provides for two-way communication between the cooperative education coordinator and representatives from the employment community. The research indicates employer willingness to participate in planning and implementing cooperative education programs. Educational agencies must increase the participation of the total community in determining goals, needs, and programs. Cooperative education can become an important part of the effort to smooth the transition from school to work.

Issue: Should credit be awarded to cooperative education students for on-the-job experience? Awarding credit in secondary cooperative vocational education programs for this experience is widely accepted. Cooperative education students in postsecondary institutions, however, sometimes do not receive credit for work experience. The validity of such credit is questioned, based on the view that experiential learning lacks academic rigor.

Recommendation: Credit should be awarded for cooperative education experiences. Cooperative education combines classroom study with related work experience and thus integrates education and work. It is recommended that credit be awarded for formally organized, structured, and supervised cooperative education programs at both the secondary and postsecondary levels.

Issue: Should cooperative education programs utilize training plans? The use of a written *training agreement* outlining general responsibilities of each party to the cooperative education program seems to have almost universal acceptance. The use of *training plans* that detail an individualized program of instruction, however, is less accepted.

Recommendation: Training plans should be a required component of cooperative education programming. Research has consistently verified the advisability of a structured program of instruction for cooperative education programs. The *training plan*, used in conjunction with the *training agreement*, details specific duties and tasks to be learned at the training station and in the school program. The training plan also outlines suggested time frames for the accomplishment of identified learning objectives, clearly identifies the instructional roles of the employer and school, and clearly explains the concept of cooperative education programming to all parties.

Issue: What amount and type of related instruction should be provided in cooperative education programs? Whereas related academic and vocational instruction is a required component of cooperative education programming, there does not seem to be a consensus as to the amount of time required in related vocational classes. State educational agency guidelines differ in regard to time requirements for related vocational instruction. Disagreement also exists as to the type of related instruction to be provided. Should the related instruction primarily be content-specific to an occupational area, or should it include basic work adjustment and employability skills training?

Recommendation: A minimum number of courses and clock hours should be established by state departments of education and educational institutions to fulfill the related academic and vocational education program requirements. The related instructional program, in all cases, must be of sufficient duration to develop the necessary competencies to prepare students for employment. Instruction should focus on identifying needs students have in common as workers (general related instruction). Suggestions for scheduling related instruction follow:

- More time should be devoted to general related instruction (i.e. attitudes, employer-employee relations, employabilities skills, and so forth) than has been the practice.
- Specific related instruction should be included throughout the program.
- Scheduling should remain flexible to meet students' changing needs.

Issue: How much time should be allocated for the supervision of students? The amount of business and industry visitation time required for effective coordination of students varies greatly among program areas and states. Requirements for extended contract time (beyond the school year) and released time for coordinators have not been adequately researched. Several studies have determined that lack of coordination time and high teacher-student ratios are major concerns of coordinators. However, opinions of administrators and employers differ as to the amount of supervision required for adequately ensuring students' educational progress and the protection of their health, safety, and welfare.

Recommendation: Additional research should be completed to determine the amount of extended contract time and released time required for cooperative education coordinators. Future research should explore the types of coordination tasks that occur beyond the regular school schedule (day and year) and the time needed to perform the administration, coordination, guidance, professional development, and public relations duties required of coordinators (based on student enrollment).

Issue: What is the role of cooperative education in expanding career options for females and special populations? Little evidence is available as to whether cooperative education programs have adequately addressed the special needs of populations such as (1) females; (2) disadvantaged, handicapped, and gifted and talented students; (3) ethnic and minority group members; and (4) students with limited English-speaking skills.

Recommendation: Additional efforts should be made in cooperative education programs to serve special populations. In the absence of evidence to the contrary, it is probable that cooperative education programs do not adequately address the needs of special populations. This is probably due to a lack of coordinator training related to the unique characteristics and special needs of these individuals. Accordingly, it is recommended that coordinator training in serving the special needs of these students be included in both pre-service and inservice training programs.

Issue: To what extent should public relations efforts be used to promote cooperative education programming? The need to promote cooperative education programs has been well documented. Several studies have also determined that public relations activities are perceived to be an important aspect of coordination.

Recommendation: Additional efforts should be made to promote cooperative education programs, and public relations activities should be used to do so. Research indicates that employers are supportive of cooperative education when they become involved with the program. Accordingly, it is recommended that additional efforts be made to promote the program among employers. Increased public relations efforts can also promote understanding of such programs among students, parents, and educators.

Cooperative education programs continue to make a real contribution to the acquisition of employability skills. Thoughtful consideration of the issues raised and recommendations offered

in this discussion, as well as action in their behalf, can be the means for achieving improved and expanded cooperative education programming.

APPENDICES

APPENDIX A

EXPERIENTIAL EDUCATION PROGRAMS

Experiential education is a type of program in which students are provided with work experience as part of their education. Descriptions of the major experiential education programs follow.

Program: Career education

Description: Career education is a program that delivers the skills and knowledge needed for exploring, understanding, and performing various life roles—student, worker, family member, and citizen. Although career education technically is not an experiential learning program, career education activities often include work-study programs.

Objectives: The program is to provide students with—

- activities designed to increase self-awareness;
- activities designed to increase career awareness;
- opportunities to develop skills in career decision-making;
- career planning and placement services.

Target Population: Kindergarten through adults

Program: Cooperative education (Higher Education Act of 1965, as amended by P.L. 96-374)

Description: Cooperative education is an educational approach that provides alternating or parallel periods of classroom study and supervised public or private employment in which (1) a written training agreement is completed between an institution of higher education, a student, and an employer; (2) a work experience related to the student's academic study or career goals is provided; (3) the rotation between academic study and work is planned and supervised to further the student's education and employability; and (4) students are employed and compensated in conformity with federal, state, and local laws.

Objectives: The program is to provide students with—

- employment related to their academic programs;
- the opportunity to earn all or part of their educational expenses;
- off-campus experiences that enrich their educational programs;
- credit toward graduation (in some institutions).

Target Population: Students enrolled in postsecondary education (at least half-time) as degree candidates

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Program: Cooperative vocational education (Vocational Education Act of 1963, as amended by the Education Amendments of 1976, P.L. 94-482)

Description: Cooperative education is a program of vocational education for persons who, through written cooperative arrangements between the school and employers, receive instruction, including required academic courses and related vocational instruction by alternation of study in school with a job in any occupational field. These two experiences must by planned and supervised by the school and employers so that each contributes to students' education and employability. Work periods and school attendance may be scheduled on alternate half days, full days, weeks, or other periods of time.

Objectives: The program is to provide students with—

- an opportunity to learn occupational skills and practical knowledge;
- an opportunity to acquire positive work attitudes and interpersonal skills;
- credit toward graduation.

Target Population: Secondary and postsecondary vocational-technical education students

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Program: Experience-Based Career Education (EBCE)

Description: Experience-based career education is a program that utilizes community resources as alternative classrooms for comprehensive secondary education.

Objectives: The program is to provide students with—

- opportunities to develop social skills;
- opportunities to develop academic and basic skills;
- opportunities for career exploration;
- credit toward graduation.

Target Population: Secondary students

Program: Industry-sponsored cooperative education

Description: Industry-sponsored cooperative education consists of postsecondary programs sponsored by industry in which students alternate between periods of study and related work experience within the company (usually for a period of from six weeks to a semester).

Objectives: The program is to provide students with—

- practical experience;
- opportunities to learn company practices, policies, and procedures;
- an income;
- credit toward graduation.

Target Population: Postsecondary students

Program: Internships

Description: Internships are work experiences required in professional degree (or certificate) programs.

Objectives: The program is to provide students with—

- opportunities to apply knowledge and skills learned in the classroom;
- opportunities to fulfill professional degree or certification requirements;
- occupational skills;
- credit toward graduation.

Target Population: Higher education students in professional degree programs

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Program: Vocational work-study (Vocational Education Act of 1963, as amended)

Description: Vocational work-study is a vocational education financial assistance program that provides public sector work experience.

Objectives: The program is to provide students with—

- financial assistance for obtaining vocational training;
- opportunities to obtain work experience.

Target Population: Full-time vocational education students who are at least fifteen and less than twenty-one years of age

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Program: Work experience (paid)

Description: Paid work experience is a school-sponsored and supervised employment program. Students are placed in either the public or private sector, but not necessarily in jobs related to their career interests. Enrollment in a vocational education program is not required.

Objectives: The program is to provide students with—

- opportunities to develop positive attitudes about work, school, and society;
- opportunities to develop interpersonal skills;
- an opportunity to earn an income;
- an alternative to the traditional school program;
- credit toward graduation.

Target Population: Secondary students

Program: Work experience (public sector employment and training program)

Description: Public sector work experience is a short-term, usually part-time work assignment with a public or nonprofit agency.

Objectives: The program is to provide students with—

- work experience;
- the incentive to remain in or return to school;
- opportunities to develop skills;
- opportunities to develop positive attitudes toward work.

Target Population: Economically disadvantaged youth between the ages of fourteen and twenty-one

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Program: Work Experience and Career Exploration Program (WECEP)

Description: The WECEP is a school-supervised and administered program that includes part-time work in the public or private sector.

Objectives: The program is to provide students with—

- an incentive to remain in school;
- an incentive to improve their performance in school;
- opportunities to develop positive attitudes toward work;
- opportunities to develop occupational skills;
- opportunities to develop interpersonal skills;
- credit toward graduation.

Target Population: Fourteen- and fifteen-year-olds who are potential high school dropouts

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Program: Work observation (unpaid work experience)

Description: Work observation is a school-sponsored and supervised program in which students are placed with one or more employers for a short period of time. Students are not compensated.

Objectives: The program is to provide students with—

- exposure to business and industry;
- an opportunity to enhance their career development;
- an opportunity to develop a realistic understanding of the world of work;
- credit toward graduation.

Target Population: Secondary and postsecondary vocational-technical students

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Program: Work release programs

Description: A work release program is one in which students either are dismissed from school during the school day or are scheduled for a reduced program of class so that they can work. School supervision is normally not provided. Work release programs are technically not part of the school curriculum.

Objectives: The program is to provide students with—

- an opportunity to earn money;
- an incentive to remain in school.

Target Population: Secondary students

APPENDIX B

COOPERATIVE EDUCATION COORDINATOR FUNCTIONS

Administration

- Conduct an annual follow-up study on cooperative education students.
- Consult with the local Employment Security Commission Office for the purpose of identifying placement opportunities for cooperative education students.
- Cooperate with school area placement personnel.
- Participate on vocational education advisory committees.

Coordination

- Visit training stations to discuss student progress.
- Observe safety conditions present in training stations.
- Encourage training sponsors to provide a variety of job experiences for students.
- Locate prospective training stations.
- Evaluate prospective training stations.
- Follow termination procedures for students who leave training stations.
- Assess student performance with training sponsors.
- Obtain suggestions from training sponsors for use in related class or lab instruction.
- Assist training sponsors in obtaining student subminimum wage exemptions.
- Complete IRS Form 6199, Targeted Jobs Tax Credit.
- Keep a log of coordination visits.
- Arrange special classroom assignments for cooperative education students who are currently unemployed.
- Practice nondiscriminatory placement prodecures with employers.

- Keep a weekly record of student work hours.
- Relocate students to different training stations when student-learners lose employment.
- Relocate students to different training stations when more desirable training stations occur.
- Communicate with training sponsors regarding student and co-employee working relationships.
- Complete a written training agreement for each student.
- Complete a written training plan for each student.
- Use a rating form for evaluating student on-the-job performance.
- Arrange appointments for student interviews with potential training sponsors.
- Inform training sponsors regarding federal and state laws related to vocational education and employment of minors.
- Arrange training station work hours for students.
- Arrange school schedules with students, faculty, and training sponsors.
- Maintain a student cooperative education on-the-job experience file with specific records.
- Encourage student attendance at school and at the training station.
- Correlate content of in-school vocational instruction with training station learning experiences.

Guidance

- Assist students with cooperative education program applications.
- Conduct student interviews for potential enrollees.
- Consult with counselors, administrators and other teachers about students entering cooperative education.
- Orient students to cooperative education policies and procedures.
- Orient parents to cooperative education policies and procedures.
- Orient faculty to cooperative education policies and procedures.
- Assist with students' personal adjustment.
- Confer with students on education progress in school.

- Analyze student cumulative records for placement purposes.
- Assist students with employment applications.
- Assist students in preparing for job interviews.
- Write letters of recommendation for students and/or graduates.
- Conduct home visitations and/or parental conferences regarding student-learners.

Professional Development

- Attend district and/or state workshops, meeting, and seminars.
- Keep current on technological changes in business and industry.
- Participate in local and/or state professional cooperative educational organizations.

Public Relations

- Inform civic and business groups about cooperative education.
- Implement a program for training sponsors orientation and development.
- Inform student groups about cooperative education.
- Use promotional brochures to inform school and community about cooperative education.
- Prepare in-school displays relating to cooperative education.
- Prepare news releases on cooperative education activities.
- Plan and conduct an annual employer-employee recognition activity.
- Make annual reports on cooperative education students.

APPENDIX C

SAMPLE COOPERATIVE EDUCATION STUDENT TRAINING AGREEMENT

EMPLOYER: _____
(Name of Business)

EMPLOYER IRS NUMBER: _____

STREET: _____

CITY: _____

STATE: _____

ZIP CODE: _____ PHONE: _____

FEDERAL HAZARDOUS OCCUPATIONAL DEVIATION:

_____ YES _____ NO

SUPERVISOR: _____

DATE EMPLOYMENT BEGINS: _____

WORKER'S DISABILITY: ____ YES ____ NO

UNDERWRITER: _____
(Carrier)

LIABILITY INSURANCE:

_____ YES _____ NO

UNDERWRITER: _____
(Carrier)

STUDENT NAME: _____

STREET: _____

CITY: _____

STATE: _____

ZIP CODE: _____ PHONE: _____

SOCIAL SECURITY NO.: _____

DRIVER'S LICENSE NO.: _____

GRADE: _____ AGE: _____

BIRTH DATE: _____

RATE OF PAY: _____

EXPECTED PROGRAM COMPLETION DATE: _____

DAILY TIME SCHEDULE: _____

FROM _____ TO _____

MAXIMUM WORK HR./WEEK: _____

CAREER OBJECTIVE: _____

OCCUPATIONAL TITLE: _____

NCES (USOE) CODE: _____

JOB TASKS AND ACTIVITIES	RELATED VOCATIONAL INSTRUCTION
The student will complete the following work-related tasks and activities (on-the-job):	The student will complete the following activities in school:

EMPLOYER'S RESPONSIBILITY IN PROGRAM:

1. The student's training period shall be an average of fifteen hours per week.
2. The training plan should include job tasks and activities that are of vocational and educational value.
3. The employer shall complete a brief progress report (provided by the coordinator) at the conclusion of each marking period indicating the trainee's progress on the job.
4. The training program that is agreed upon shall not be interrupted by either trainee or employer without consultation with the coordinator.
5. The employment of the trainee shall conform to all federal, state, and local laws and regulations, including nondiscrimination against any applicant or employee because of race, color, religion, age, marital status, sex, national origin, or ancestry. This policy of nondiscrimination shall apply also to otherwise qualified handicapped individuals.

TRAINEE'S RESPONSIBILITY IN PROGRAM:

1. Trainee will abide by the regulations and policies of the employer and the school.
2. Each trainee shall faithfully perform the assignments of the job and school program.
3. No trainee shall leave the training program without first receiving the consent of the cooperative education coordinator.

Approved Date

Trainee _____

Parent _____

Coordinator _____

Employer _____

NOTE: (Employer must retain a copy of the completed training agreement at the place of employment before a minor begins work.)

APPENDIX D

SAMPLE SCHOOL YEAR TRAINING PLAN

Marketing and Distributive Education

Student/Trainee: _____ Training Station: _____

Date of Birth: _____ Training Sponsor: _____

Address: _____ Title: _____

_____ Address: _____

Telephone No.: (____) _____ _____

Student Job Title: _____ Telephone No.: (____) _____

Student Career Interest: _____ Coordinator: _____

_____ School: _____

LEARNING ACTIVITIES	Learning Location		Sept. Oct.	Nov. Dec. Jan.	Feb. March April	May June
	TS ✓	LAB ✓				
PERFORMING ADVERTISING ACTIVITIES						
Demonstrate knowledge of store advertising activities.						
Describe advertised merchandise to customers.						
COMMUNICATING INFORMATION						
Give verbal presentations.						
Use telephone correctly.						

LEARNING ACTIVITIES	Learning Location		Sept. Oct.	Nov. Dec. Jan.	Feb. March April	May June
	TS ✓	LAB ✓				
Demonstrate business-like introductions.						
Complete written forms and reports.						
Demonstrate listening skills.						
Participate in employee meetings.						
Keep confidential certain store information.						
Suggest ideas for improvements to management.						
Distribute store information.						
DISPLAYING MERCHANDISE						
Plan counter, window, and interior displays.						
Build counter, window, and interior displays.						
Perform display housekeeping.						
Design and letter signs.						
Dismantle displays.						

LEARNING ACTIVITIES	Learning Location		Sept. Oct.	Nov. Dec. Jan.	Feb. March April	May June
	TS ✓	LAB ✓				
APPLYING HUMAN RELATIONS SKILLS						
Demonstrate positive personality traits.						
Participate in student organizations and/or local business organizations.						
Answer customer inquiries.						
MANAGING STORE FUNCTIONS						
Assist with training of other employees.						
Encourage employee morale.						
Follow store policies and procedures.						
Follow lines of authority within store plan.						
Organize job tasks.						
Place stock within a department.						
Explain customer services and facility locations.						
Practice expense control.						

LEARNING ACTIVITIES	Learning Location		Sept. Oct.	Nov. Dec. Jan.	Feb. March April	May June
	TS ✓	LAB ✓				
USING MATHEMATICS						
Perform basic mathematical computations.						
Make change.						
Write sales checks.						
Compute sales tax.						
Operate a cash register/terminal.						
Examine and process a check sale.						
Process a charge sale.						
Process customer returns.						
Check out cash register/terminal.						
PERFORMING MERCHANDISING ACTIVITIES						
Count stock.						
Place an order.						
Compare store's prices to competitors'.						

LEARNING ACTIVITIES	Learning Location		Sept. Oct.	Nov. Dec. Jan.	Feb. March April	May June
	TS ✓	LAB ✓				
PERFORMING BUSINESS OPERATIONS						
Suggest use of credit.						
Complete departmental stock control records.						
Unload delivery vehicles.						
Check incoming merchandise.						
Mark merchandise.						
Change marked retail prices.						
Stock merchandise.						
Perform store maintenance.						
Observe safety precautions.						
Assist accident victims.						
Recognize potential shoplifters.						
USING PRODUCT/SERVICE INFORMATION						
Collect product information.						
Handle returned merchandise.						

LEARNING ACTIVITIES	Learning Location		Sept. Oct.	Nov. Dec. Jan.	Feb. March April	May June
	TS ✓	LAB ✓				
Demonstrate product knowledge to sell merchandise.						
SELLING MERCHANDISE						
Use appropriate sales techniques.						
Process a telephone order.						
Wrap a customer's package.						
Order special request merchandise.						
Respond to a customer's complaint.						
ADDITIONAL DUTIES						

LEARNING ACTIVITIES	Learning Location		Sept. Oct.	Nov. Dec. Jan.	Feb. March April	May June
	TS ✓	LAB ✓				

It is the policy of the school district that no person on the basis of race, color, religion, national origin or ancestry, age, sex, marital status, or handicap should be discriminated against, excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination in any program or activity.

APPENDIX E

DIRECTORY OF STATE OFFICIALS WITH SUPERVISORY RESPONSIBILITY FOR COOPERATIVE EDUCATION PROGRAMS

State	Name, Title, and Address	Telephone Number
Alabama	Dr. Jim Bishop, Assistant Director Division of Vocational Education Alabama Department of Education State Office, Room 885 Montgomery, AL 36130	(205) 832-3357
Alaska	Leland A. Clune, Administrator Department of Education Pouch F Juneau, AK 99811	(907) 465-2980
Arizona	Ellen Pearson Education Program Specialist Arizona Department of Education 1535 West Jefferson Street Phoenix, AZ 85007	(602) 255-3040
Arkansas	James H. Shepard, Coordinator Instructional Programs Vocational and Technical Education Arkansas Department of Education West Education Building Little Rock, AR 72201	(501) 371-2469
California	John Iskra, Administrator Vocational Field Operations California Department of Education 721 Capitol Mall Sacramento, CA 95814	(916) 322-2331
Colorado	Dorothy Horrell, Associate Director Occupational Education State Board for Community Colleges and Occupational Education Centennial Building, 2nd Floor 1313 Sherman Street Denver, CO 80203	(303) 866-3071
Connecticut	John J. O'Brien, Consultant Connecticut Department of Education P.O. Box 2219, Room 340 Hartford, CT 06145	(203) 566-3847

State	Name, Title, and Address	Telephone Number
Delaware	Dr. McKinley Wardlaw, State Supervisor Vocational Education and Special Programs Department of Public Instruction P.O. Box 1402 John G. Townsend Building Dover, DE 19901	(302) 736-4681
District of Columbia	Calvin Thompson, Supervising Director Cooperative Education MacFarland Junior High School Iowa Avenue and Allison Street, NW Washington, DC 20010	(202) 576-7481
Florida	Dr. Richard D. Ray, Director Vocational Program and Staff Development Section Florida Department of Education Knott Building Tallahassee, FL 32301	(904) 488-0484
Georgia	Ed Lewis Word, Director Division of Vocational Instruction Georgia Department of Education 325 State Office Building Atlanta, GA 30334	(404) 656-2560
Guam	Director, Placement Center P.O. Box 23069 Main Postal Facility Agana, Guam 96921	(671) 734-2405
Hawaii	Nelson H. Muraoka, Acting State Director Vocational Education Office of the State Director for Vocational Education University of Hawaii 2327 Dole Street Honolulu, HI 96822	(808) 948-7461
	Frank Kanzaki Occupational Development Section Hawaii Department of Education 941 Hindiuka Drive Honolulu, HI 96821	(808) 373-3109
Idaho	Kristin Johnson, State Supervisor Marketing and Distributive Education Idaho Department of Education 650 West State Street Boise, ID 83720	(208) 334-2659

State	Name, Title, and Address	Telephone Number
Illinois	Dr. John D. Sweeney Vocational Administrator Department of Adult, Vocational and Technical Education Illinois State Board of Education Springfield, IL 62777	(217) 782-4876
Indiana	Dr. Michael Brici, Director Division of Vocational Education Department of Public Instruction State House, Room 229 Indianapolis, IN 46204	(317) 927-0257
	Dr. Don K. Gentry, Executive Director/ State Director of Vocational and Technical Education State Board of Vocational and Technical Education 401 Illinois Building 17 West Market Street Indianapolis, IN 46204	(317) 232-1814
Iowa	Ronald D. Jarchow, Chief Instructional Services Section Career Education Division Iowa Department of Public Instruction Grimes State Office Building Des Moines, IA 50319	(515) 281-4718
Kansas	Susan Owen, Education Program Specialist Business and Office Education Kansas Department of Education 120 East 10th Street Topeka, KS 66612	(913) 296-3958
Kentucky	Donnalie Stratton, Unit Director Special Programs Bureau of Vocational Education Kentucky Department of Education Room 2120, Capitol Plaza Tower Frankfort, KY 40601	(502) 564-3775
	Audrey Carr, Division Director Secondary Program Management Bureau of Vocational Education Kentucky Department of Education Room 2124, Capitol Plaza Tower Frankfort, KY 40601	(502) 564-3775

State	Name, Title, and Address	Telephone Number
Louisiana	Huland Miley, Section Chief Business Education Office of Vocational Education Louisiana Department of Education P.O. Box 44064 Baton Rouge, LA 70804	(504) 342-3715
Maine	Maurice Parent Cooperative Education Bureau of Vocational Education Department of Education and Cultural Services Augusta, ME 04333	(207) 289-3565
Maryland	Richard C. Kiley, Specialist Distributive Education and Cooperative Vocational Education Program Development and Operations Branch Division of Vocational-Technical Education Maryland State Department of Education 200 West Baltimore Street Baltimore, MD 21201	(301) 659-2077
Massachusetts	Dr. Ralph E. Watson, Executive Director Division of Occupational Education Massachusetts Department of Education 1385 Hancock Quincy, MA 02169	(617) 770-7347
Michigan	Carl Woloszyk, Vocational Consultant Vocational-Technical Education Michigan Department of Education Service P.O. Box 30009 Lansing, MI 48909	(517) 373-3365
Minnesota	Tom Strom, Manager Secondary Vocational Education Minnesota Department of Education 5th Floor Capitol Square Building 550 Cedar Street St. Paul, MN 55101	(612) 296-3306
	Dr. Rosemary Fruehling, Manager Postsecondary Vocational Education Minnesota Department of Education 5th Floor Capitol Square Building 550 Cedar Street St. Paul, MN 55101	(612) 296-3387

State	Name, Title, and Address	Telephone Number
Mississippi	James R. Bowers, State Supervisor Vocational and Technical Education Mississippi Department of Education P.O. Box 771 Jackson, MS 39205	(601) 354-6801
Missouri	Jack Bitzenburg, Director Cooperative, Marketing and Distributive Education Missouri Department of Elementary and Secondary Education P.O. Box 480, Jefferson Building Jefferson City, MO 65102	(314) 751-4367
Montana	Redina Berscheid Marketing and Distributive Education/ Co-op Specialist Office of Public Instruction State Capitol, Room 106 Helena, MT 59620	(406) 449-3036
Nebraska	Richard Campbell, Director Cooperative Education Youth Programs Department of Education 301 Centennial Mall South P.O. Box 94987 Lincoln, NE 68509	(402) 471-2432
Nevada	Cooperative Education, Consultant Nevada Department of Education 215 East Bonanza Nevada State Mailroom Las Vegas, NV 89158	(702) 386-5401
New Hampshire	Thomas N. Besaw, Consultant Cooperative, Marketing and Distributive Education New Hampshire Department of Education Department of Vocational Technical Education 105 Loudon Road Concord, NH 03301	(603) 271-3186
New Jersey	Joan M. Birchenall, Director Bureau of Occupational Programs Division of Vocational Education and Career Preparation New Jersey Department of Education CN 500, 225 West State Street Trenton, NJ 08625	(609) 292-6582

State	Name, Title, and Address	Telephone Number
New Mexico	Darrell W. Jones, State Supervisor Marketing and Distributive Education New Mexico Department of Education Education Building Santa Fe, NM 87501-2786	(505) 827-6646
New York	Marian Potter, Chief Bureau of Business, Marketing and Distributive Education Division of Occupational Education Instruction New York Department of Education 99 Washington Avenue Albany, NY 12234	(518) 474-3966
North Carolina	Robert A. Mullen, Deputy Director Vocational Education North Carolina Department of Education Education Building, Room 545 Raleigh, NC 27611	(919) 733-3001
North Dakota	Leonard Pokladnik, Supervisor Distributive Education State Board of Vocational Education Capitol Building, 15th Floor Bismarck, ND 58505	(701) 224-3128
Ohio	Dr. Bernard Nye Assistant Vocational Director Distributive Education Ohio Department of Education Ohio Department Building, Room 915 65 South Front Street Columbus, OH 43215	(614) 466-3494
Oklahoma	Victor Van Hook, Assistant State Director Occupational Areas Oklahoma State Department of Vocational Education 1515 West Sixth Avenue Stillwater, OK 74074	(405) 377-2000 ext. 204
Oregon	Ray Rhodes, Specialist Planning, Cooperative Work Experience and Diversified Occupations Specialist Vocational Planning Section Division of Vocational Education Oregon Department of Education 700 Pringle Parkway, SE Salem, OR 97310	(503) 378-5859

State	Name, Title, and Address	Telephone Number
Pennsylvania	E. H. Blyler Cooperative Education Pennsylvania Department of Education Bureau of Vocational Education 333 Market Street P.O. Box 911 Harrisburg, PA 17108	(717) 783-6965
Puerto Rico	Ada N. Cardona, Director Special Vocational Services Component Vocational, Technical and High Skills Education Area Puerto Rico Department of Education P.O. Box 759 Hato Rey, PR 09919	(809) 754-0828
Rhode Island	Robert McCracken, Consultant Bureau of Vocational-Technical Education Rhode Island Department of Education 22 Have Street Providence, RI 02908	(401) 277-2691
South Carolina	Dr. Anne Matthews, Supervisor Program Planning and Development Office of Vocational Education South Carolina Department of Education Rutledge Building, Room 904 Columbia, SC 29201	(803) 758-2482
South Dakota	Pete Falleson, Assistant Director Division of Vocational Education South Dakota Department of Education Kneip Office Building Pierre, SD 57501	(605) 773-3424
Tennessee	Don Maloney Tennessee Department of Education 213 Cordell Hull Building Nashville, TN 37219	(615) 741-1931
Texas	Dr. Paul W. Lindsey, Associate Commissioner Occupational Education and Technology Texas Education Agency 201 East 11th Street Austin, TX 78701	(512) 834-4298

State	Name, Title, and Address	Telephone Number
Trust Territory	John Perkins, State Director Adult and Vocational Education Office of Education Headquarters, T.T.P.I. Saipan, CM 96950	782-9827
Utah	Dr. Frank Blair, Specialist Cooperative Education and Apprenticeship Programs Division of Vocational Education and Manpower Services Utah Department of Education 250 East 5th South Salt Lake City, UT 84111	(801) 533-5574
Vermont	Robert Watson, Consultant Cooperative Vocational Education Division of Vocational-Technical Education Vermont Department of Education State Office Building, 4th Floor Montpelier, VT 05602	(802) 828-3101
Virginia	Dewey Oakly, Director Vocational Program Service Virginia Department of Education James Monroe Building 101 North 14th Street, P.O. Box 60 Richmond, VA 23219	(804) 225-2078
Virgin Islands	Dr. Aubrey L. Roebuck P.O. Box 6640 Charlotte Amalie St. Thomas, VI 00801	(809) 774-3046
Washington	Kent Neeley, Director Distributive Education Superintendent of Public Instruction Washington Department of Education 7510 Armstrong Street, SW, MS-FG-11 Tumwater, WA 98504	(206) 752-2060
West Virginia	Clarence E. Burdette, Assistant State Superintendent Bureau of Vocational, Technical and Adult Education State Office Building 6-B221 Capitol Complex Charleston, WV 25305	(304) 348-2346

State	Name, Title, and Address	Telephone Number
Wisconsin	Ruel Falk, Director Bureau for Vocational Education Department of Public Instruction Wisconsin Department of Education 125 South Webster Street, P.O. Box 7841 Madison, WI 53707	(608) 267-9244
Wyoming	Dr. Keiji Okano, State Coordinator Distributive and Cooperative Education Wyoming Department of Education Hathaway Building Cheyenne, WY 82002	(307) 777-6235

APPENDIX F

GLOSSARY OF COOPERATIVE EDUCATION TERMINOLOGY

The terminology used in the operation of cooperative education programs is often confusing to both employers and school officials. Much of this confusion has resulted from the proliferation of experiential learning programs existing in both the public and private sectors. Terms related to cooperative education programs follow.

- *Advisory Committee*—a group of occupational-area experts selected from outside the field of education to advise educators on vocational education programs.

- *Competency*—a quality (e.g., knowledge, skill, or attitude) required for occupational success.

- *Cooperative Education (Title VIII, Higher Education Act of 1965, as amended by P.L. 96-374)*—an educational approach that provides alternating or parallel periods of classroom study and supervised public or private employment. Such a program is characterized by (1) a written training agreement between an institution of higher education, a student, and an employer; (2) work experience related to the student's course of academic study and career goals; (3) alternation between class attendance and work planned and supervised to further the student's education and employability; and (4) employment in compliance with federal, state, and local laws.

- *Cooperative Vocational Education (Vocational Education Act of 1963 as amended by Title II of the Education Amendments of 1976, P.L. 94-482)*—a program of vocational education that provides, through written cooperative arrangements between schools and employers, instruction that includes required academic courses and related vocational instruction. These two experiences are planned and supervised by schools and employers so that each contributes to students' education and employability. Work periods and school attendance may be on alternate half days, full days, weeks, or other periods.

- *Coordination*—the process of integrating the administrative, organizational, and instructional activities of cooperative education programs.

- *Coordinator*—an educator who coordinates school and occupational experiences for students.

- *Diversified Occupations*—a program to provide vocational education in schools where the required training facilities are lacking. On-the-job training is combined with classroom instruction through an agreement among the school, an employer, and a student. A diversified occupations coordinator places students in several occupational areas and works cooperatively with instructors who provide related vocational instruction.

- *Job Description*—a summary listing the elements of a specific occupation. The description may include the (1) purpose of the job, (2) duties, (3) equipment used, (4) qualifications, (5) training requirements, (6) physical and mental demands, and (7) working conditions.

- *On-the-Job Training*—the instruction in the performance of sequentially planned tasks given a student by an employer during usual working hours. Learning experiences involve both the theoretical application and the skill aspects of the learning situation.

- *Related Vocational Instruction*—instruction specifically designed to improve personal and social skills, provide needed basic education (developmental), and develop relevant occupational skills and knowledges. Instruction should be regularly scheduled, complement occupational learning experiences, and be planned and developed to meet the specific needs of each student. Instruction should include occupational information and related work-adjustment skills.

- *Student (Higher Education Act of 1965, as amended)*—a person enrolled in a postsecondary institution (other than by correspondence) who is enrolled in a degree program of not less than two years and carries at least half the academic work load required of persons who are full-time degree candidates.

- *Student-Learner (Vocational Education Act of 1963, as amended)*—a person enrolled in a cooperative vocational education program who alternates instruction in school with a job in any occupational area.

- *Task*—a measurable element of work from a larger occupational duty usually performed by a single worker in a short span of time.

- *Task Analysis*—a sequential listing of the tasks necessary to the performance of a clearly defined, specific job. Tasks analyses are useful for classification and instruction.

- *Training Agreement*—a written agreement that outlines the responsibilities of the student and employer. It is approved by the student, employer, teacher-coordinator, and parent or guardian.

- *Training Plan*—an educational plan often used in conjunction with a training agreement. Specific job tasks to be learned on the job and in the educational institution are included, along with an organized plan for the orderly acquisition and progression of job, duties, and tasks.

- *Training Sponsor*—an individual directly responsible for supervising students' on-the-job learning experiences.

- *Training Station*—an organization providing on-the-job-training experiences for students enrolled in a cooperative education program.

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